

In the Claims

Claims 1-7 and 21-30 have been canceled without prejudice. Claims 8-20 and 31-50 remain in the application.

8. (Amended) A method of forming a pair of field effect transistors comprising:

forming a pair of active areas over a substrate, one of the active areas having a width less than one micron;

forming a gate line over both active areas to provide a pair of transistors having different threshold voltages, the transistors being provided with the different threshold voltages without using a separate channel implant for either transistor; and

wherein the transistor with [the] a lower of the threshold voltages corresponds to the active area having the width less than one micron.

9. (Amended) The method of claim 8 further comprising forming the transistor having [the] a higher of the threshold voltages to have an active area width greater than one micron.

10. (Amended) The method of claim 8 further comprising forming the transistor having [the] a higher of the threshold voltages to have an active area width less than one micron.

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13. (Amended) The method of claim 8, wherein the forming of the gate line comprises forming a common gate line over the pair of active areas.

14. (Amended) The method of claim 8, wherein the forming of the gate line comprises forming a common gate line over the pair of active areas, the transistors being formed in a parallel configuration.

31. (Amended) A semiconductor processing method of forming dynamic random access memory circuitry comprising:

providing a substrate having a memory array area over which memory circuitry is to be formed, and a peripheral area over which peripheral circuitry is to be formed;

forming a plurality of shallow trench isolation regions received within the peripheral area of the substrate, the shallow trench isolation regions being formed to define a plurality of active areas having widths within the substrate, some of the widths being no greater than about one micron, at least two of the widths being different; and

forming a conductive line over respective active areas to provide individual transistor gates, [the] wherein transistors corresponding to the active areas having the different widths [having] have different threshold voltages.

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37. (Amended) The transistor assembly of claim 34, wherein one of the individual transistors comprises a portion of precharge circuitry for dynamic random access memory circuitry.

38. (Amended) The transistor assembly of claim 34, wherein one of the individual transistors comprises a pass transistor.

39. (Amended) The transistor assembly of claim 34, wherein one of the individual transistors comprises a portion of sense amplifier circuitry for dynamic random access memory circuitry and has a lower threshold voltage V_{th} .

40. (Amended) The transistor assembly of claim 34, wherein some of the individual transistors are joined together in a parallel configuration.

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41. (Amended) Dynamic random access memory circuitry comprising:
a substrate having a memory array area for supporting memory circuitry
and a peripheral area for supporting peripheral circuitry;
a plurality of active areas within the peripheral area having widths
[defined by shallow trench isolation regions] of no greater than about one
micron, the widths being defined by shallow trench isolation regions, at least
some of the widths being different; and
conductive lines disposed over the plurality of active areas to provide
individual transistors, those transistors whose widths are different having
different threshold voltages from one another.

44. (Amended) A transistor assembly comprising:
an active area;
a plurality of spaced-apart shallow trench isolation regions received by
the active area and defining active sub-areas therebetween, individual active
sub-areas having respective widths, at least one of the widths being no
greater than about one micron and at least one other sub-area having a width
which is different from the one width; and
a gate line extending over the one and the other sub-area and defining,
in part, separate transistors, wherein each of the separate transistors [have]
has a different threshold voltage [voltages].

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45. (Amended) The transistor assembly of claim 44, [further comprising a gate line extending over a plurality of the active sub-areas defining a plurality of transistors,] wherein each active sub-area width of an associated transistor [being] is no greater than about one micron.

46. (Amended) The transistor assembly of claim 44, [further comprising a gate line extending over a plurality of the active sub-areas defining a plurality of transistors,] wherein each active sub-area width of an associated transistor [being] is no greater than about one micron, wherein more than two [of the plurality of] separate transistors have different threshold voltages.

50. (Amended) The transistor assembly of claim 49, further comprising a sense amplifier formed from a pair of transistors, each of the pair having a gate that is cross-coupled to a drain of another of the pair, sources of the pair being coupled to the common node.

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